

LAMPIRAN

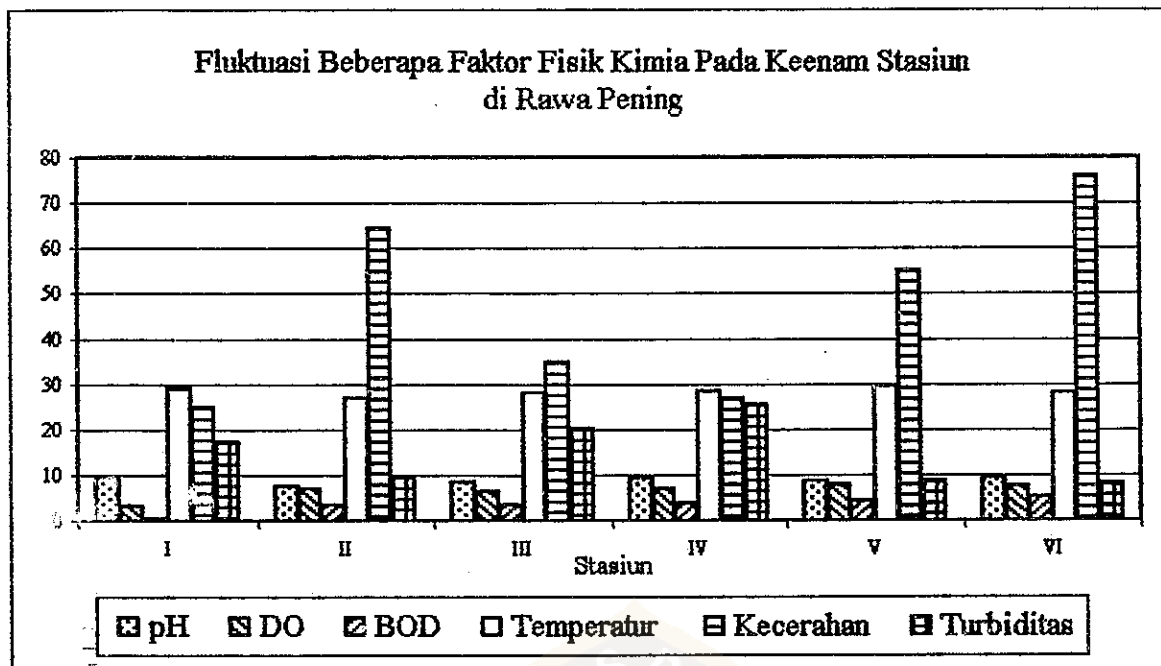


Lampiran 1. Kondisi Faktor Fisik Kimia pada Keenam Stasiun di Rawa Pening

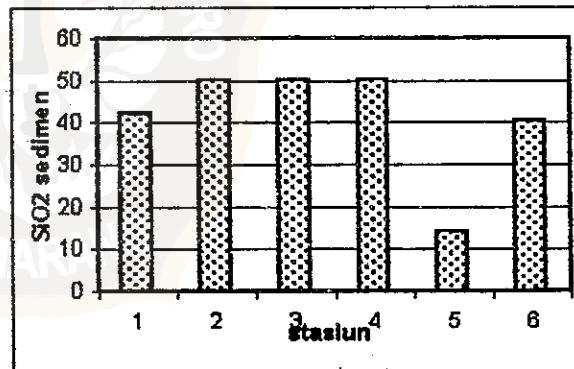
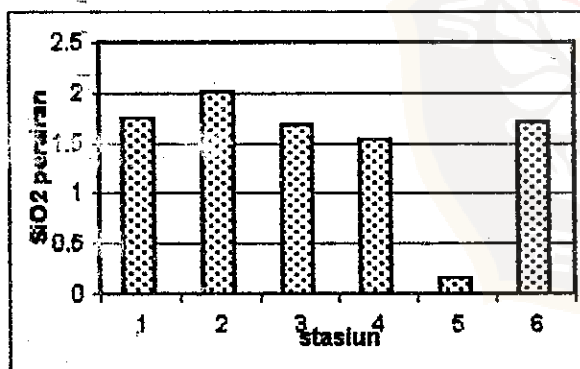
No	Parameter	I	II	III	IV	V	VI
1	pH	9,61	7,50	8,37	9,37	8,73	9,34
2	DO	3,33	7,10	6,53	7,10	8,00	7,60
3	BOD	0,53	3,60	3,53	3,70	4,50	5,20
4	Temperatur (°C)	29,00	27,00	28,00	28,50	29,50	28,00
5	Kecerahan (cm)	25,00	64,58	35,00	27,00	55,00	75,80
6	Turbiditas	17,35	9,80	20,30	25,60	8,86	8,15
7	SiO ₂ perairan (mg/l)	1,75	2,01	1,68	1,54	0,15	1,70
8	SiO ₂ sedimen (%)	42,27	50,17	50,28	50,22	14,20	40,27



Lampiran 2. Fluktuasi Beberapa Faktor Fisik Kimia pada Keenam Stasiun di Rawa Pening



a



b

Lampiran 3. Regresi dan Korelasi Berganda dan Tunggal antara H' dengan SiO₂**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.890 ^a	.792	.653	.3087

a. Predictors: (Constant), SiO₂ sedimen, SiO₂ air**ANOVA^b**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.089	2	.544	5.709	.095 ^a
	Residual	.286	3	9.532E-02		
	Total	1.374	5			

a. Predictors: (Constant), SiO₂ sedimen, SiO₂ air

b. Dependent Variable: H'

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.125	.468		2.405	.095
	SiO ₂ air	.585	.555	.741	1.054	.369
	SiO ₂ sedimen	5.946E-03	.026	.158	.225	.836

a. Dependent Variable: H'

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.888 ^a	.788	.736	.2696

a. Predictors: (Constant), SiO₂ air**ANOVA^b**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.084	1	1.084	14.905	.018 ^a
	Residual	.291	4	7.270E-02		
	Total	1.374	5			

a. Predictors: (Constant), SiO₂ air

b. Dependent Variable: H'

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.200	.289		4.151	.014
	SiO ₂ air	.701	.181	.888	3.861	.018

a. Dependent Variable: H'

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.845 ^a	.715	.644	.3130

a. Predictors: (Constant), SiO2 sedimen

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.983	1	.983	10.028	.034 ^a
	Residual	.392	4	9.798E-02		
	Total	1.374	5			

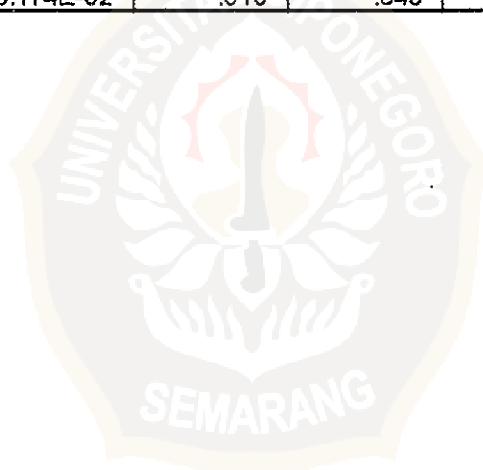
a. Predictors: (Constant), SiO2 sedimen

b. Dependent Variable: H'

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t.	Sig.
		B	Std. Error	Beta		
1	(Constant)	.923	.433		2.133	.100
	SiO2 sedimen	3.174E-02	.010	.845	3.167	.034

a. Dependent Variable: H'



Lampiran 4. Regresi dan Korelasi Berganda dan Tunggal antara N dengan SiO₂
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.735 ^a	.540	.233	52480.3616

a. Predictors: (Constant), SiO₂ sedimen, SiO₂ air

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.68E+09	2	4840442267	1.757	.312 ^a
	Residual	8.26E+09	3	2754188353		
	Total	1.79E+10	5			

a. Predictors: (Constant), SiO₂ sedimen, SiO₂ air

b. Dependent Variable: N

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	167829.9	79533.892		2.110	.125
	SiO ₂ air	165084.7	94281.638	1.831	1.751	.178
	SiO ₂ sedimen	-8407.618	4485.252	-1.960	-1.875	.158

a. Dependent Variable: N

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.014 ^a	.000	-.250	66970.3807

a. Predictors: (Constant), SiO₂ air

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3322040.3	1	3322040.290	.001	.980 ^a
	Residual	1.79E+10	4	4485031888		
	Total	1.79E+10	5			

a. Predictors: (Constant), SiO₂ air

b. Dependent Variable: N

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	62449.805	71793.971		.870	.433
	SiO ₂ air	1226.818	45077.582	.014	.027	.980

a. Dependent Variable: N

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	-.263 ^a	.069	-.164	64627.1237

a. Predictors: (Constant), SiO2 sedimen

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.24E+09	1	1236789137	.296	.615 ^a
	Residual	1.67E+10	4	4176665114		
	Total	1.79E+10	5			

a. Predictors: (Constant), SiO2 sedimen

b. Dependent Variable: N

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	110692.1	89318.962		1.239	.283
	SiO2 sedimen	-1126.122	2069.438	-.263	-.544	.615

a. Dependent Variable: N



Lampiran 5. Regresi dan Korelasi Berganda dan Tunggal antara A. ambigua dengan SiO₂

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.796 ^a	.634	.390	15.1066

a. Predictors: (Constant), SiO₂ sedimen, SiO₂ air

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1185.070	2	592.535	2.596	.222 ^a
	Residual	684.627	3	228.209		
	Total	1869.697	5			

a. Predictors: (Constant), SiO₂ sedimen, SiO₂ air

b. Dependent Variable: A. ambigua

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	77.884	22.894		3.402	.042
	SiO ₂ air	-10.787	27.139	-.371	-.397	.718
	SiO ₂ sedimen	-.610	1.291	-.440	-.472	.669

a. Dependent Variable: A. ambigua

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	-.779 ^a	.607	.508	13.5602

a. Predictors: (Constant), SiO₂ air

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1134.185	1	1134.185	6.168	.068 ^a
	Residual	735.512	4	183.878		
	Total	1869.697	5			

a. Predictors: (Constant), SiO₂ air

b. Dependent Variable: A. ambigua

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	70.243	14.537		4.832	.008
	SiO ₂ air	-22.668	9.127	-.779	-2.484	.068

a. Dependent Variable: A. ambigua

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	-.784 ^a	.615	.518	13.4227

a. Predictors: (Constant), SiO2 sedimen

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1149.019	1	1149.019	6.377	.065 ^a
	Residual	720.678	4	180.170		
	Total	1869.697	5			

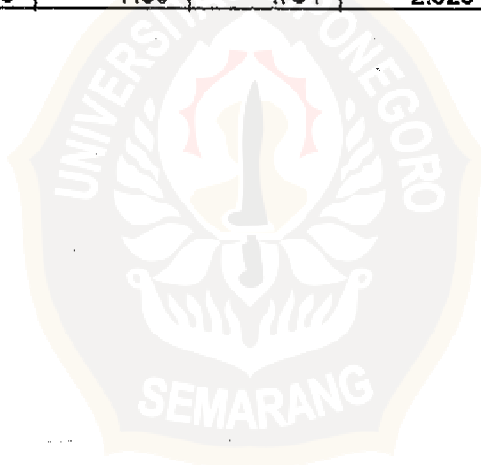
a. Predictors: (Constant), SiO2 sedimen

b. Dependent Variable: A. ambigua

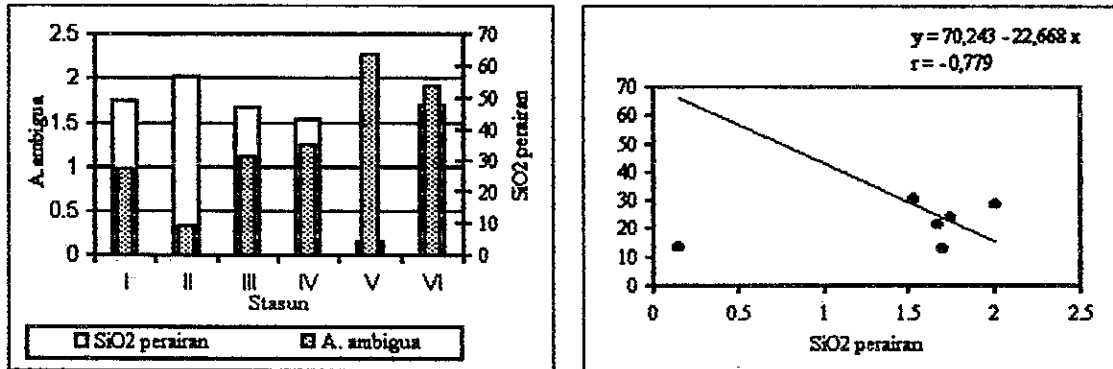
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	81.618	18.551		4.400	.012
	SiO2 sedimen	-1.085	.430	-.784	-2.525	.065

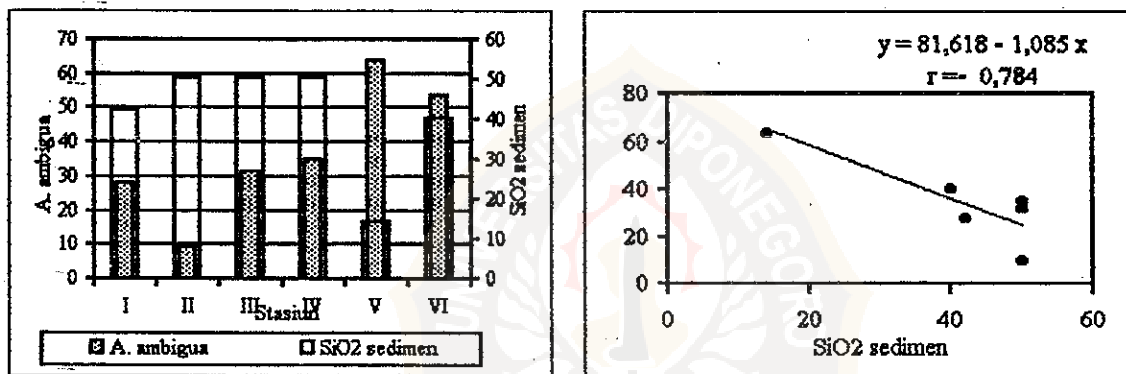
a. Dependent Variable: A. ambigua



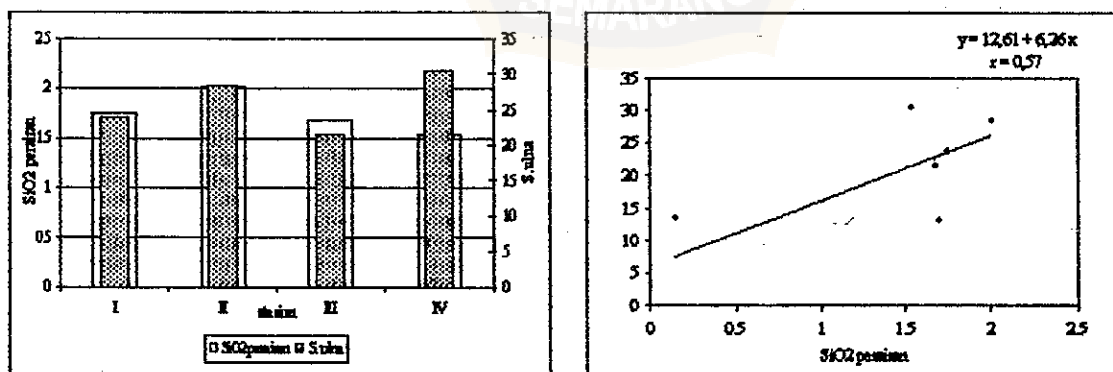
Lampiran 6 : Kecenderungan antara kelimpahan relatif beberapa spesies terhadap kandungan SiO_2 .



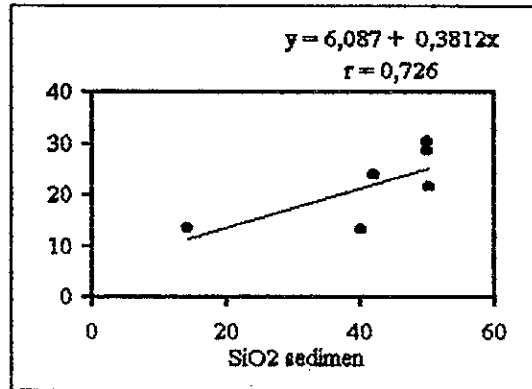
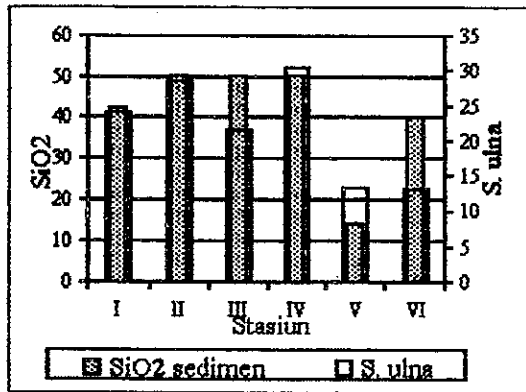
Gambar a. Hubungan antara kelimpahan relatif *Aulacoseira ambigua* dengan kandungan SiO_2 perairan.



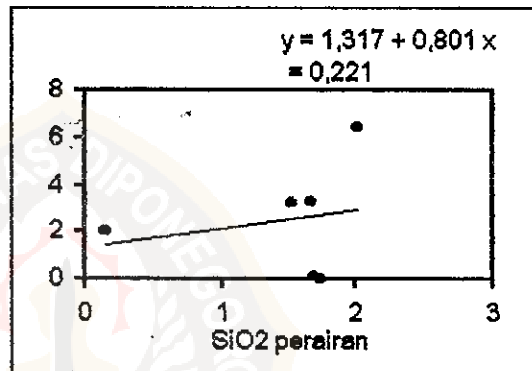
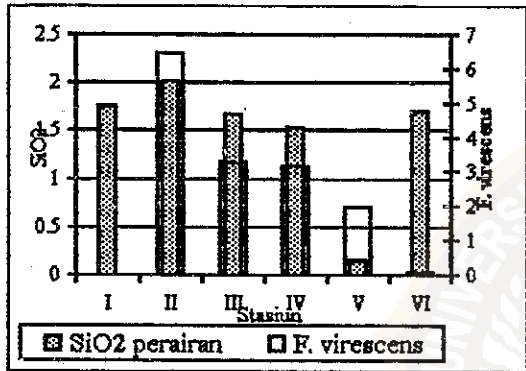
Gambar b. Hubungan antara kelimpahan relatif *Aulacoseira ambigua* dengan kandungan SiO_2 sedimen.



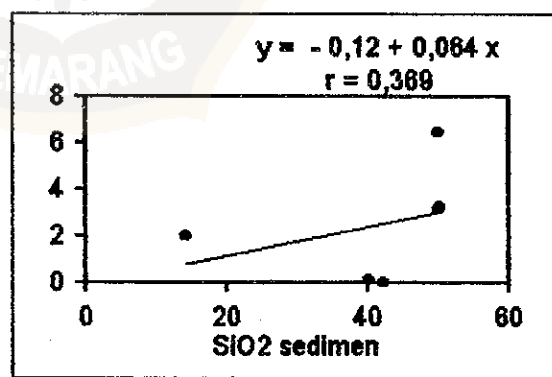
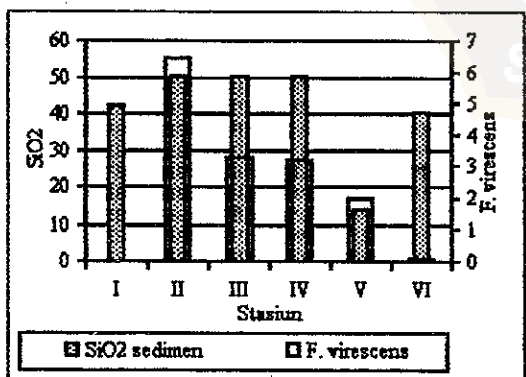
Gambar c. Kecenderungan antara kelimpahan relatif *Synedra ulna* terhadap kandungan SiO_2 perairan.



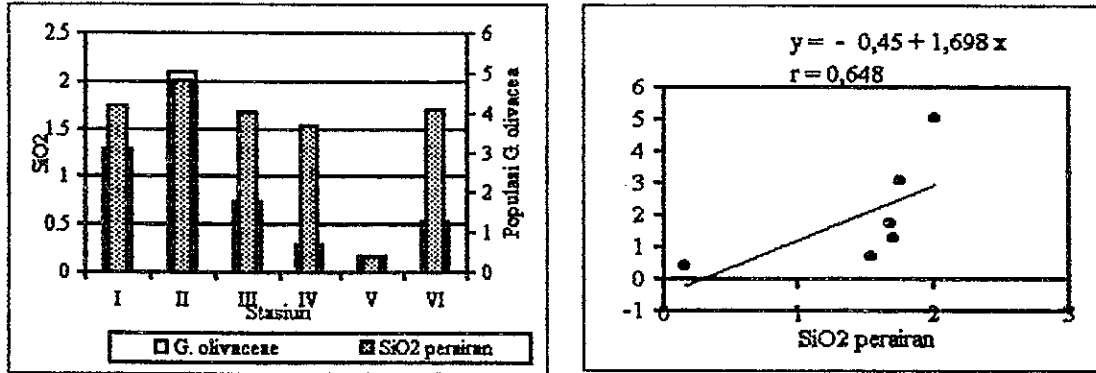
Gambar d. Kecenderungan antara kelimpahan relatif *Synedra ulna* dengan kandungan SiO₂ sedimen



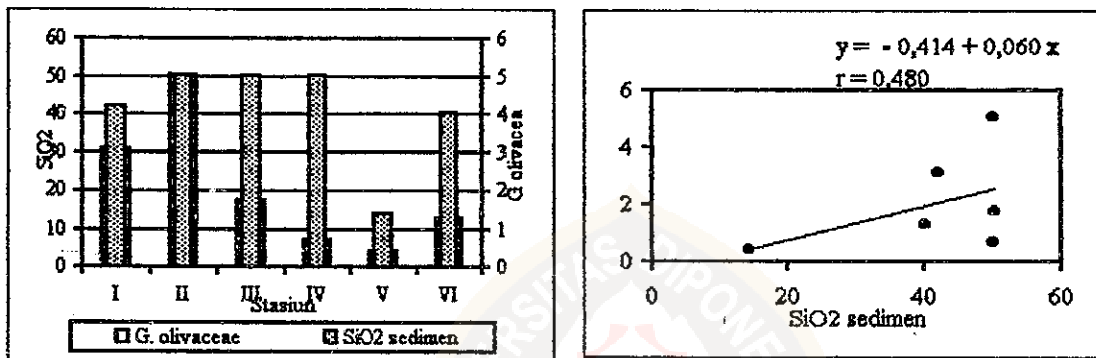
Gambar e. Kecenderungan antara kelimpahan relatif *Fragilaria virescens* terhadap kandungan SiO₂ perairan.



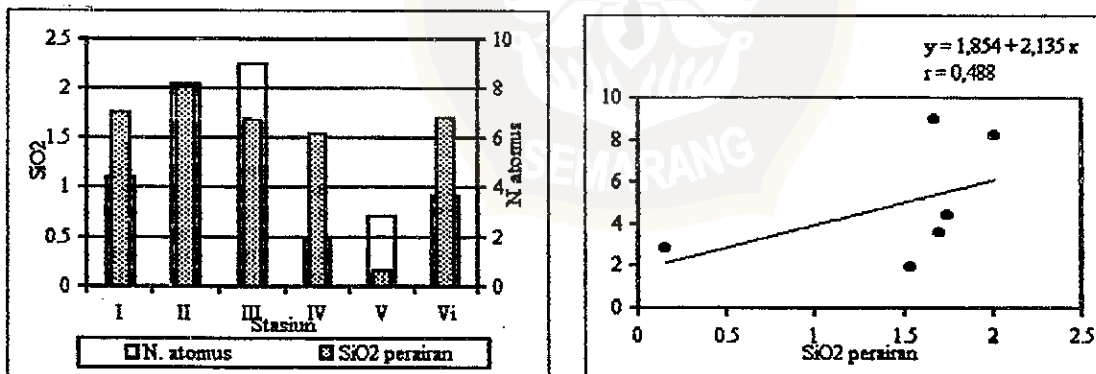
Gambar f. Kecenderungan antara kelimpahan relatif *Fragilaria virescens* terhadap kandungan SiO₂ sedimen.



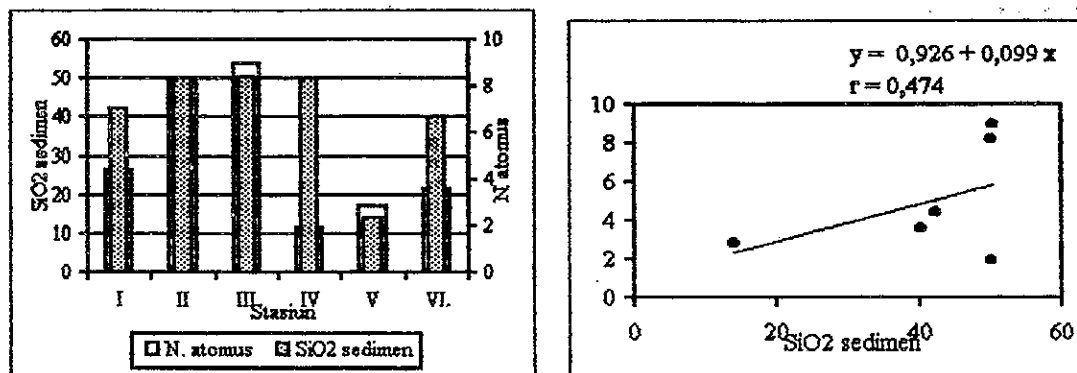
Gambar g. Kecenderungan antara kelimpahan relatif *Gomphonema olivacea* terhadap kandungan SiO_2 perairan.



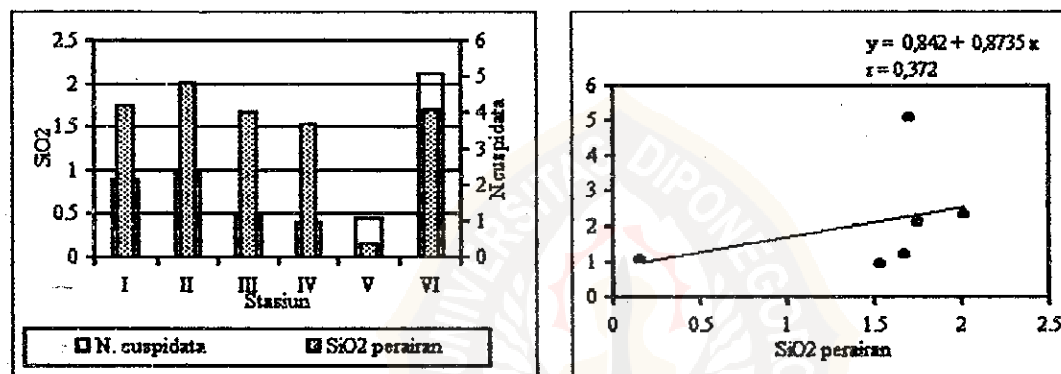
Gambar h. Kecenderungan antara kelimpahan relatif *Gomphonema olivacea* terhadap kandungan SiO_2 sedimen.



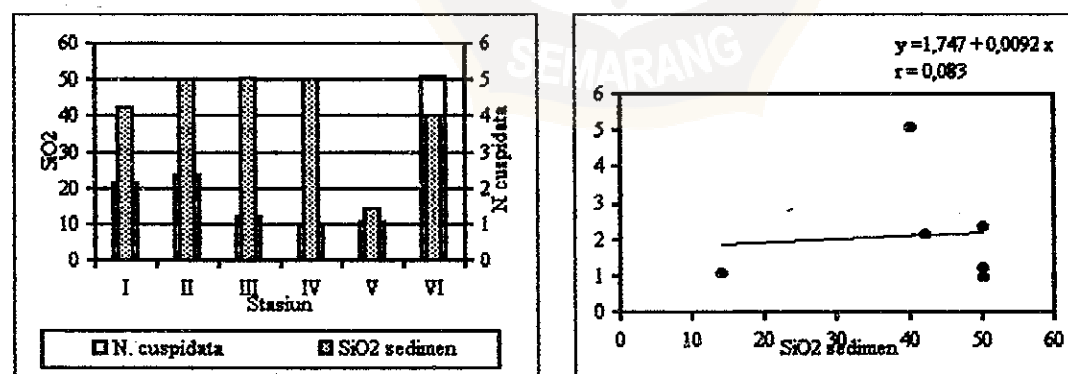
Gambar i. Kecenderungan antara kelimpahan relatif *Navicula atomus* terhadap kandungan SiO_2 perairan.



Gambar j. Kecenderungan antara kelimpahan relatif *Navicula atomus* terhadap kandungan SiO2 sedimen.



Gambar k. Kecenderungan antara kelimpahan relatif *Navicula cuspidata* terhadap kandungan SiO2 perairan.



Gambar l. Kecenderungan antara kelimpahan relatif *Navicula cuspidata* terhadap kandungan SiO2 sedimen.

Lampiran 7. Korelasi Parsial Spesies - Spesies di Rawa Pening
Correlations

		A.ambigua	C.menegh lana	M.varians	Stephano discus
Pearson Correlation	SiO2 perairan	-.778	-.884	.148	-.406
	SiO2 sedimen	-.784	-.857	.433	-.150
Sig. (1-tailed)	SiO2 perairan	.034	.010	.390	.212
	SiO2 sedimen	.032	.015	.196	.388
N	SiO2 perairan	6	6	6	6
	SiO2 sedimen	6	6	6	6

Correlations

		A.lanceolata	A.alata	A.veneta
Pearson Correlation	SiO2 perairan	-.636	.174	.486
	SiO2 sedimen	-.776	-.037	.324
Sig. (1-tailed)	SiO2 perairan	.087	.371	.030
	SiO2 sedimen	.035	.472	.031
N	SiO2 perairan	6	6	6
	SiO2 sedimen	6	6	6

Correlations

		C.placentula	C.solea	C.tumida	D.hiemale
Pearson Correlation	SiO2 perairan	.228	.397	-.049	.584
	SiO2 sedimen	.299	.495	-.178	.519
Sig. (1-tailed)	SiO2 perairan	.085	.048	.300	.019
	SiO2 sedimen	.381	.308	.187	.025
N	SiO2 perairan	6	6	6	6
	SiO2 sedimen	6	6	6	6

Correlations

		D.vulgare	D.smithii	E.minuta	E.zebra
Pearson Correlation	SiO2 perairan	.146	.217	.172	.240
	SiO2 sedimen	.313	.333	.243	.088
Sig. (1-tailed)	SiO2 perairan	.334	.339	.372	.324
	SiO2 sedimen	.130	.259	.321	.434
N	SiO2 perairan	6	6	6	6
	SiO2 sedimen	6	6	6	6

Correlations

		E.lunaris	E.pectinalis	E.serpentina
Pearson Correlation	SiO2 perairan	.135	.219	-.164
	SiO2 sedimen	.074	.059	.078
Sig. (1-tailed)	SiO2 perairan	.400	.338	.378
	SiO2 sedimen	.444	.455	.441
N	SiO2 perairan	6	6	6
	SiO2 sedimen	6	6	6

Correlations

		F.capucina	F.fenestrata	F.virescens
Pearson Correlation	SiO2 perairan	.501	.432	.220
	SiO2 sedimen	.637	.516	.369
Sig. (1-tailed)	SiO2 perairan	.156	.196	.338
	SiO2 sedimen	.087	.147	.236
N	SiO2 perairan	6	6	6
	SiO2 sedimen	6	6	6

Correlations

		G.acuminatum	G.augur	G.lanceolatum	G.olivacea
Pearson Correlation	SiO2 perairan	.671	.285	-.418	.646
	SiO2 sedimen	.631	.202	-.230	.480
Sig. (1-tailed)	SiO2 perairan	.072	.292	.205	.083
	SiO2 sedimen	.089	.350	.331	.168
N	SiO2 perairan	6	6	6	6
	SiO2 sedimen	6	6	6	6

Correlations

		Gyrosigma	N.atomus	N.cuspidata
Pearson Correlation	SiO2 perairan	-.215	.487	.371
	SiO2 sedimen	-.170	.474	.083
Sig. (1-tailed)	SiO2 perairan	.342	.164	.234
	SiO2 sedimen	.374	.171	.438
N	SiO2 perairan	6	6	6
	SiO2 sedimen	6	6	6

Correlations

		<i>N.rynoch epala</i>	<i>Navicula sp</i>	<i>N.palea</i>	<i>P.borealis</i>
Pearson Correlation	SiO2 perairan	.170	.485	.430	.174
	SiO2 sedimen	.212	.273	.408	.478
Sig. (1-tailed)	SiO2 perairan	.373	.165	.198	.371
	SiO2 sedimen	.343	.300	.211	.169
N	SiO2 perairan	6	6	6	6
	SiO2 sedimen	6	6	6	6

Correlations

		<i>P.leptosoma</i>	<i>P.subcapitata</i>	<i>P.viridis</i>
Pearson Correlation	SiO2 perairan	.345	.468	.498
	SiO2 sedimen	.120	.178	.494
Sig. (1-tailed)	SiO2 perairan	.251	.174	.157
	SiO2 sedimen	.410	.368	.160
N	SiO2 perairan	6	6	6
	SiO2 sedimen	6	6	6

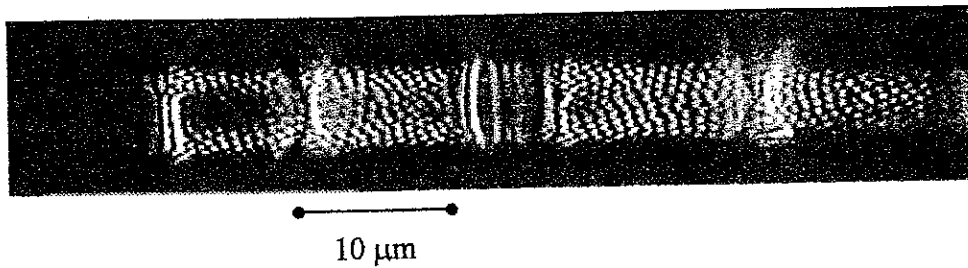
Correlations

		<i>R.curvata</i>	<i>R.gibba</i>	<i>Stauroneis</i>	<i>S.angusta</i>
Pearson Correlation	SiO2 perairan	.398	.198	.730	.404
	SiO2 sedimen	.314	-.049	.812	.330
Sig. (1-tailed)	SiO2 perairan	.217	.353	.050	.213
	SiO2 sedimen	.273	.463	.025	.262
N	SiO2 perairan	6	6	6	6
	SiO2 sedimen	6	6	6	6

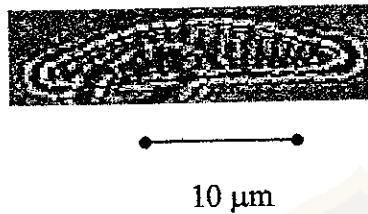
Correlations

		<i>S.ovalls</i>	<i>S.robusta</i>	<i>S.ulna</i>
Pearson Correlation	SiO2 perairan	.392	.418	.566
	SiO2 sedimen	.412	.281	.726
Sig. (1-tailed)	SiO2 perairan	.221	.204	.121
	SiO2 sedimen	.208	.295	.051
N	SiO2 perairan	6	6	6
	SiO2 sedimen	6	6	6

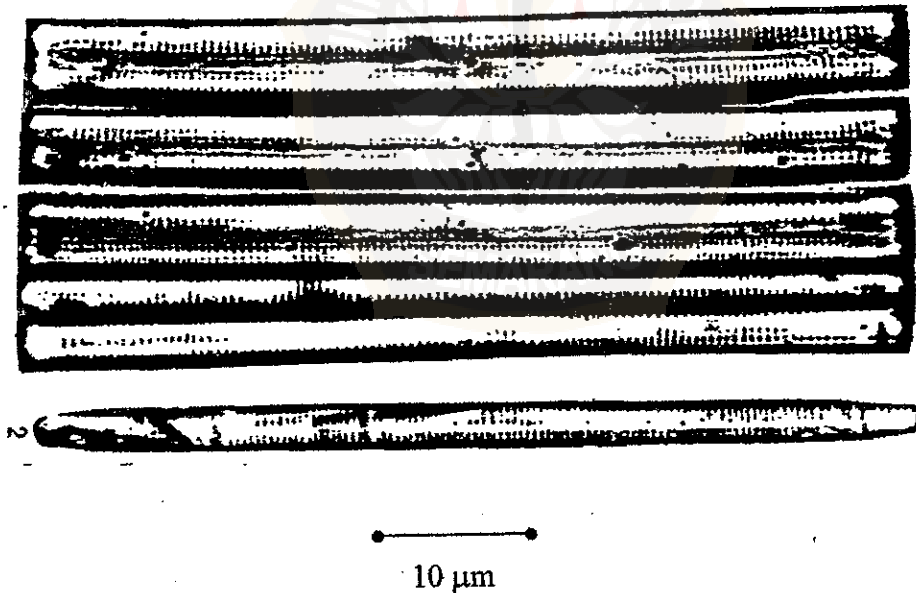
Lampiran 8. Beberapa Spesies Diatom yang Ditemukan di Rawa Pening



Gambar 1. *Aulacoseira ambigua*
(Sumber : <http://www.indiana.edu/~diatom/diatom.html#14nads>)



Gambar 2. *Eunotia pectinalis*
(Sumber : <http://www.indiana.edu/~diatom/diatom.html#14nads>)



Gambar 3. *Fragilaria virescens*.
(Sumber : Bourelly, 1981)



10 μ m

Gambar 4. *Gomphonema olivacea*.
(Sumber : Bourelly, 1981)



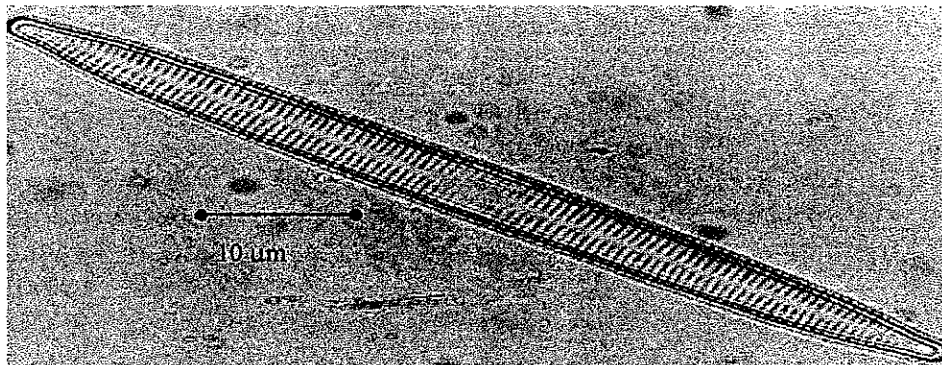
10 μ m

Gambar 5. *Navicula atomus*
(Sumber : <http://www.indiana.edu/~diatom/diatom.html#14nads>)



10 μ m

Gambar 6. *Navicula cuspidata*.
(Sumber : Bourelly, 1981)



10 μ m

Gambar 7. *Synedra ulna*.
(Sumber : <http://www.geography.monash.edu.au/~diatom/index.html>)